## Practice Exercise 1

- Write a program in Python to print out the number of seconds in a 30-day month.
- Write a program in Python to print out the number of seconds in a year. 2.
- Use Python as a calculator. The operations are just the same as what we are used to in 3. mathematics.
- A high-speed train can travel at an average speed of 150 mph. How long will it take a train travelling at this speed to travel from London to Glasgow which is 414 miles away? Give your answer in minutes.



- Using the help facility on Python. Type help() to start the online facility, then "keywords" to view the keywords that are available in Python. Get help on the "if" keyword.
- Use the interpreter to execute the following:
  - a. 49/7
  - b. 8\*\*2
  - c. 20%3
  - d. 17//3
  - e. 7\*\*3
- Use Python to evaluate the following:
  - a. If you are going on holiday to France how many Euros would you get when you convert £500 at an exchange rate of £1 = €1.20.



b. On return from your holiday, you now have €320. How many GBP would you receive at an exchange rate of £1 = €1.32. Use Python to calculate this.

......



The volume of a sphere is given by  $V=\frac{4}{3}\pi r^3$ . Use Python to find the volume of a sphere with a radius of 10 cm.



- .9. Insert brackets in the expression 36/9-2 to get:
  - a. 2
  - b. 5.12



## Practice Exercise 2

1. Write a program that assigns the variables length and width as 18 and 7 respectively. Use the variables to calculate the perimeter and area of the rectangle.

Hint: Perimeter = 2I + 2w and Area =  $I \times w$ 



- 2. Write a Python program that defines a variable called <code>days\_in\_school\_each\_year</code> and assign 192 to the variable. The program should then print out the total hours that you spend in school from Year 7 to Year 11, assuming that each day you spend 6 hours in school.
- 3. What value will be printed on the screen?

marks = 25
marks = marks + 10
print(marks)



4. Given the code below, what value will be printed to the screen?

time\_spent = 34 # in minutes
# after one minutes
time\_spent = time\_spent +1
print(time\_spent)

Hint: We use # to include comments in our code.
Comments are ignored by the interpreter; they are meaningless for the interpreter but give more information to us humans. This is particularly important for maintaining the code at a later date.

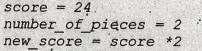
5. Which of the values below would be printed on the screen from the code snippet?



- a. 5040
- b. 210
- c. 720
- d. Error

hours in a week = hours in a day \* 7
hours in a month = hours in a week \* 30 # assuming we have 30 days in a month
print (hours in a month)

6. What is the value of score after running the following code?.





7. a. True or false? An expression can be assigned to a variable.



b. What is the value of y after running the code?

x, y = 23, 45y, x = x, y



cont. overleaf

.....